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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/919,408	07/31/2001	Ihor R. Lemischka	11245/46117	4881

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EXAMINER
GAMBEL, PHILLIP

ART UNIT	PAPER NUMBER
1644	10

DATE MAILED: 06/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/919408	Applicant(s) LEMISCHKA
	Examiner GAMBEL	Art Unit 1644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☑ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☑ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☑ Claim(s) _____ is/are pending in the application. 81,82

4a) Of the above claim(s) _____ is/are withdrawn from consideration. 82

5)☐ Claim(s) _____ is/are allowed.

6)☑ Claim(s) _____ is/are rejected. 81

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☑ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☑ objected to by the Examiner. SEE OFFICE ACTION

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a)☑ The translation of the foreign language provisional application has been received.

15)☑ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1)☑ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☑ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4)☐ Interview Summary (PTO-413) Paper No(s). _____.
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other:

PAPER NO. 10

DETAILED ACTION

1. Applicant's election without traverse of Group I in Paper No. 9, filed 3/18/03, is acknowledged.

Claim 81 is under consideration in the instant application.

Claim 82 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a nonelected invention.

Claims 1-80 have been canceled previously.

2. Given the lack of availability of all of the priority documents (i.e. USSN 07/679,666 and 07/7287,913) to the examiner at this time, applicant is invited to present a detailed analysis as to which priority date the claimed subject matter has clear support, particularly in light of the rejections under 35 USC 112, first paragraph, scope and written description.

It is noted that the filing date of the instant claims is deemed to be at least the filing date of the priority application USSN 07/793,065 (11/15/91) as it relates to methods of isolating FLK-2 expressing populations of cells isolated by flk-2-specific antibody.

Applicant is invited to indicate the priority date of the elected invention.

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. Applicant should restrict the title to the claimed invention.

4. Formal drawings and photographs have been submitted which fail to comply with 37 CFR 1.84. Please see the form PTO-948 previously sent in Paper No. 8, mailed 2/13/03.

INFORMATION ON HOW TO EFFECT DRAWING CHANGES

A. Correction of Informalities – 37 CFR 1.85

New corrected drawings must be filed with the changes incorporated therein. Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and centered within the top margin. If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings MUST be filed within the THREE MONTH shortened statutory period set for reply in the "Notice of Allowability." Extensions of time may NOT be obtained under the provisions of 37 CFR 1.136 for filing the corrected drawings after the mailing of a Notice of Allowability. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

B. Corrections other than Informalities Noted by Draftsperson on form PTO-948.

All changes to the drawings, other than informalities noted by the Draftsperson, MUST be made in the same manner as above except that, normally, a highlighted (preferably red ink) sketch of the changes to be incorporated into the new drawings MUST be approved by the examiner before the application will be allowed. No changes will be permitted to be made, other than correction of informalities, unless the examiner has approved the proposed changes.

Timing of Corrections

Applicant is required to submit acceptable corrected drawings within the time period set in the Office action. See 37 CFR 1.185(a). Failure to take corrective action within the set (or extended) period will result in ABANDONMENT of the application.

5. While it appears that applicant is in compliance with the Sequence Rules, applicant is required to review the instant application for compliance with the requirements of applications which contain sequence disclosures that are encompassed by the definitions for nucleotide and/or amino acid sequences set forth in 37 CFR 1.821-1.825. If the instant application does not have an appropriate SEQ ID NO: for each disclosed sequence, then applicant must comply with the Sequence Rules applicant as set forth in 37 CFR 1.821-1.825.

Applicant is required to identify all sequences with the appropriate SEQ ID NOS.

6. The application is required to be reviewed and all spelling, TRADEMARKS, and like errors corrected.

Trademarks should be capitalized or accompanied by the ™ or ® symbol wherever they appear and be accompanied by the generic terminology. Although the use of trademarks is permissible in patent applications, the proprietary nature of the trademarks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Appropriate corrections are required

7.The following is a quotation of the first paragraph of 35 U.S.C. § 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. This is a rejection under 35 USC § 112, first paragraph, "written description" (and not new matter).

Claim 81 is rejected under 35 U.S.C. § 112, first paragraph, as the specification does not contain a written description of the claimed invention, in that the disclosure does not reasonably convey to one skilled in the relevant art that the inventor(s) had possession of the claimed invention at the time the application was filed.

There is insufficient written description encompassing "FLK-2 receptor" because the relevant identifying characteristics such as structure of other physical and/or chemical characteristics of "FLK-2 receptor" are not set forth in the specification as-filed, commensurate in scope with the claimed invention.

Also, it is noted that applicant appears to be relying upon the filing date of the priority application USSN 07/793,065 (11/15/91).

Vas-Cath Inc. v. Mahurkar, 19 USPQ2d 1111, makes clear that "applicant must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession *of the invention*. The invention is, for purposes of the 'written description' inquiry, *whatever is now claimed*." (See page 1117.) The specification does not "clearly allow persons of ordinary skill in the art to recognize that [he or she] invented what is claimed." (See Vas-Cath at page 1116.)

Adequate written description requires more than a mere statement that it is part of the invention and reference to a potential method for isolating it. See Fiers v. Revel, 25 USPQ2d 1601, 1606 (CAFC 1993) and Amgen Inc. V. Chugai Pharmaceutical Co. Ltd., 18 USPQ2d 1016.

One cannot describe what one has not conceived. See Fiddes v. Baird, 30 USPQ2d 1481, 1483. In Fiddes v. Baird, claims directed to mammalian FGF's were found unpatentable due to lack of written description for the broad class. The specification provided only the bovine sequence.
Thus, the specification fails to describe these DNA sequences. The Court further elaborated that generic statements are not an adequate written description of the genus because it does not distinguish the claimed genus from others, except by function. Finally, the Court indicated that while applicants are not required to disclose every species encompassed within a genus, the description of a genus is achieved by the recitation of a representative number of DNA molecules, defined by nucleotide sequence, falling within the scope of the genus, See The Regents of the University of California v. Eli Lilly and Company, 43 USPQ2d 1398, 1406 (Fed. Cir. 1997).

Applicant is relying upon certain biological activities and the disclosure of a limited representative number of species to support an entire genus. The instant invention encompasses employing any antibody that binds any "FLK-2 receptor", yet the instant specification and the priority applications do not provide sufficient written description as to the structural features of any "FLK-2 receptor" and the correlation between the chemical structure and the function of the genus of "FLK-1 receptors". The reliance on the disclosed limited examples of the "FLK-2 receptors" in the specification as-filed and the priority applications do not support the written description of any "FLK-2 receptor".

It has been well known that minor structural differences even among structurally related compounds or compositions can result in substantially different biology, expression and activities. Therefore, structurally unrelated "FLK-2 receptors" encompassed by the claimed invention other than the FLK-2 receptors" set forth in the SEQ ID NOS (e.g. SEQ ID NOS 1-4) in the specification as-filed and the priority applications.

Again, given the lack of availability of all of the priority documents to the examiner at this time, applicant is invited to present a detailed analysis as to which priority date the claimed subject matter has clear support.

A person of skill in the art would not know which sequences are essential, which sequences are non-essential, and what particular sequence lengths identify essential sequences for identifying a "FLK-2 receptor", encompassed by the claimed specificity. For example, there is insufficient guidance based on the reliance of "FLK-2 receptor" set forth in SEQ ID NOS: 1-4 to direct a person of skill in the art to select or to predict particular sequences as essential for identifying "FLK-2 receptors" encompassed by the claimed specificities.

The specification nor the priority applications do not disclose nor identify "FLK-2 receptors" other than those disclosed in this application and said priority applications.

"FLK-2 receptors" can differ in structure and physicochemical properties.

Mere idea or function is insufficient for written description; isolation and characterization at a minimum are required

Skolnick et al. (Trends in Biotech., 18(1):34-39, 2000) teach that the skilled artisan is well aware that assigning functional activities for any particular protein or protein family based upon sequence homology is inaccurate, in part because of the multifunctional nature of proteins (e.g., "Abstract" and "Sequence-based approaches to function prediction", page 34). Even in situations where there is some confidence of a similar overall structure between two proteins, only experimental research can confirm the artisan's best guess as to the function of the structurally related protein (see in particular "Abstract" and Box 2). In the absence of sufficient guidance and direction to the structural and functional analysis, applicant's reliance upon the certain FLK-1 receptors" disclosed in the specification as-filed and the priority applications does not appear to provide sufficient written description for "FLK-2 receptor" encompassed by the claimed antibody specificities.

It is noted that specification as-filed discloses that the claimed proteins encompass proteins which are 30%, 50%, 65%, 75% or 85% homologous to the disclosed proteins (e.g. see page 20, paragraph 1).

Applicant is relying upon certain properties and the disclosure of a limited representative number of species to support an entire genus of "an antibody that is specific for the FLK-2 receptor" encompassed by the claimed product-by-process limitations.

For example, Lederman et al. (Molecular Immunology 28: 1171-1181, 1991) disclose that a single amino acid substitution in a common allele ablates binding of a monoclonal antibody (see entire document).

For example, Li et al. (PNAS 77: 3211-3214, 1980) disclose that dissociation of immunoreactivity from other biological activities when constructing analogs (see entire document).

The instant claims do not provide sufficient structural and functional characteristics coupled with a known or disclosed correlation between function and structure. Since the disclosure fails to describe the common attributes or characteristics that identify members of the genus of "FLK-2 receptors".

The Guidelines for the Examination of Patent Applications Under the 35 U.S.C. 112, ¶ 1 "Written Description" Requirement make clear that if a claimed genus does not show actual reduction to practice for a representative number of species; then the Requirement may be alternatively met by reduction to drawings, or by disclosure of relevant, identifying characteristics, i.e., structure or other physical and or chemical properties, by functional characteristics coupled with a known or disclosed correlation between function and structure, or by a combination of such identifying characteristics, sufficient to show the applicant was in possession of the genus (Federal Register, Vol. 66, No. 4, pages 1099-1111, Friday January 5, 2001, see especially page 1106 column 3).

In the absence of structural characteristics that are shared by members of the genus of "FLK-2 receptors"; one of skill in the art would reasonably conclude that the disclosure fails to provide a representative number of species to describe the genus. Thus, Applicant was not in possession of the claimed genus. See University of California v. Eli Lilly and Co. 119 F.3d 1559, 43 USPQ2d 1398 (Fed. Cir. 1997).

Applicant is directed to the Guidelines for the Examination of Patent Applications Under the 35 U.S.C. 112, ¶ 1 "Written Description" Requirement, Federal Register, Vol. 66, No. 4, pages 1099-1111, Friday January 5, 2001.

Applicant is reminded that Vas-Cath makes clear that the written description provision of 35 USC 112 is severable from its enablement provision. (See page 1115.)

5. Claim 81 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for FLK-2 receptor encoded by SEQ ID NOS: 1-4 as disclosed in the specification as-filed and priority applications, does not reasonably provide enablement for any "FLK-2 receptor".

The specification does not enable any person skilled in the art to which it pertains, or with which it is most clearly connected, to make and use the invention commensurate in scope with these claims.

Applicant has not provided sufficient biochemical information (e.g. molecular weight, amino acid composition, N-terminal sequence, etc.) that distinctly identifies the scope of "FLK-2 receptor" other than those encompassed by the disclosure of the particular mouse "FLK-2 receptor" encoded by SEQ ID NOS: 1-4 disclosed in the specification as-filed and the priority applications. "FLK-2 receptor" may have some notion of the activity of the receptor, ligand or agent, claiming biochemical molecules by a particular name given to the protein (e.g receptor or ligand) by various workers in the field fails to distinctly claim what that protein is and what the compositions are made up of. Reasonable correlation must exist between the scope of the claims and scope of enablement set forth. The specification does not describe nor enable any "FLK-2 receptor".

Applicant is relying upon certain biological activities and the disclosure of a limited representative number of species to support an entire genus. The instant invention encompasses employing any antibody that binds any "FLK-2 receptor", yet the instant specification and the priority applications do not provide sufficient written description as to the structural features of any "FLK-2 receptor" and the correlation between the chemical structure and the function of the genus of "FLK-2 receptors". The reliance on the disclosed limited examples of the "FLK-2 receptors" in the specification as-filed and the priority applications do not support the written description of any "FLK-2 receptor".

It has been well known that minor structural differences even among structurally related compounds or compositions can result in substantially different biology, expression and activities. Therefore, structurally unrelated "FLK-2 receptors" encompassed by the claimed invention other than the FLK-2 receptors" set forth in the SEQ ID NOS (e.g. SEQ ID NOS 1-4) in the specification as-filed and the priority applications.

Given the lack of availability of all of the priority documents to the examiner at this time, applicant is invited to present a detailed analysis as to which priority date the claimed subject matter has clear support.

A person of skill in the art would not know which sequences are essential, which sequences are non-essential, and what particular sequence lengths identify essential sequences for identifying a "FLK-2 receptor", encompassed by the claimed specificity. For example, there is insufficient guidance based on the reliance of "FLK-2 receptor" set forth in SEQ ID NOS: 1-4 to direct a person of skill in the art to select or to predict particular sequences as essential for identifying "FLK-2 receptors" encompassed by the claimed specificities.

The specification nor the priority applications do not disclose nor identify "FLK-2 receptors" other than those disclosed in this application and said priority applications.

"FLK-2 receptors" can differ in structure and physicochemical properties.

Mere idea or function is insufficient for written description; isolation and characterization at a minimum are required

It is noted that specification as-filed discloses that the claimed proteins encompass proteins which are 30%, 50%, 65%, 75% or 85% homologous to the disclosed proteins (e.g. see page 20, paragraph 1).

Applicant is relying upon certain properties and the disclosure of a limited representative number of species to support an entire genus of "an antibody that is specific for the FLK-2 receptor" encompassed by the claimed invention.

For example, Lederman et al. (Molecular Immunology 28: 1171-1181, 1991) disclose that a single amino acid substitution in a common allele ablates binding of a monoclonal antibody (see entire document).

For example, Li et al. (PNAS 77: 3211-3214, 1980) disclose that dissociation of immunoreactivity from other biological activities when constructing analogs (see entire document).

The instant claims do not provide sufficient structural and functional characteristics coupled with a known or disclosed correlation between function and structure. Since the disclosure fails to describe the common attributes or characteristics that identify members of the genus of "FLK-2 receptors".

Since the amino acid sequence of a polypeptide determines its structural and functional properties, predictability of which changes can be tolerated in a polypeptide's amino acid sequence and still retain similar functionality (e.g. ligand or receptor) requires a knowledge of and guidance with regard to which amino acids in the polypeptide's sequence, if any, are tolerant of modification and which are conserved (i.e. expectedly intolerant to modification), and detailed knowledge of the ways in which a polypeptide's structure relates to its functional usefulness. However, the problem of predicting polypeptide structure from mere sequence data of a single amino acid sequence and in turn utilizing predicted structural determinations to ascertain binding or functional aspects ligands and receptors and finally what changes can be tolerated with respect thereto is complex and well outside the realm of routine experimentation. In re Fisher, 166 USPQ 18 indicates that the more unpredictable an area is, the more specific enablement is necessary in order to satisfy the statute.

Because of the lack of sufficient guidance and predictability in determining which structures would lead to "FLK-2 receptors" with the desired properties and specificities and that the relationship between the sequence of a peptide and its tertiary structure (i.e. its activity) was not well understood and was not predictable (e.g. see Ngo et al., in The Protein Folding Problem and Tertiary Structure Prediction, 1994, Merz et al., (ed.), Birkhauser, Boston, MA, pp. 433 and 492-495.); it would require an undue amount of experimentation for one of skill in the art to arrive at the breadth of "FLK-2 receptors" encompassed by the claimed invention.

Skolnick et al. (Trends in Biotech., 18(1):34-39, 2000) teach that the skilled artisan is well aware that assigning functional activities for any particular protein or protein family based upon sequence homology is inaccurate, in part because of the multifunctional nature of proteins (e.g., "Abstract" and "Sequence-based approaches to function prediction", page 34). Even in situations where there is some confidence of a similar overall structure between two proteins, only experimental research can confirm the artisan's best guess as to the function of the structurally related protein (see in particular "Abstract" and Box 2). In the absence of sufficient guidance and direction to the structural and functional analysis, applicant's reliance upon the certain FLK-1 molecules disclosed as filed or in the parent applications does not appear to provide sufficient enabling support for any "FLK-2 receptors" encompassed by the claimed invention and so the experimentation left to those skilled in the art is unnecessarily, and improperly, extensive and undue.

"It is not sufficient to define the recombinant molecule by its principal biological activity, e.g. having protein A activity, because an alleged conception having no more specificity than that is simply a wish to know the identity of any material with that biological property." Colbert v. Lofdahl, 21 USPQ2d, 1068, 1071 (BPAI 1992).

Without sufficient guidance, making and using "FLK-2 receptor-specific antibodies" would have been unpredictable and the experimentation left to those skilled in the art is unnecessarily, and improperly, extensive and undue

6. Claim 81 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 81 is indefinite in the recitation of "FLK- 2 receptor" in that it only describes the claimed antibody specificity of interest by an arbitrary protein name. While the name itself may have some notion of the activity of the protein, there is nothing in the claims which distinctly claims the protein. Applicant should particularly point out and distinctly claim the "FLK-2 receptor" by claiming sufficient characteristics associated with the protein (e.g. activity, molecular weight, amino acid composition, N-terminal sequence, etc.). Claiming biochemical molecules by a particular name given to the protein by various workers in the field fails to distinctly claim what that protein is and what the compositions are made up of.

Also, the claim is indefinite in the recitation of "FLK-2 receptor" because it is not clear whether the claimed specificity is "FLK-2" or a "receptor of FLK-2".

Applicant should specifically point out the support for any amendments made to the disclosure. See MPEP 714.02 and 2163.06

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office Action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claim 81 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Tsukamoto et al. (U.S. Patent No. 5,061,620) (1449) in view of Matthews et al. (Cell 65: 1143-1152, 1991) (1449).

It was well known and practiced at the time the invention was made to isolate and purify cells including hemopoietic cells of interest for a variety of biological and therapeutic purposes by a variety of affinity purification methods, as taught by Tsukamoto et al. (see entire document, including the Description of the Specific Embodiments, including columns 3-4).

Tsukamoto et al. differ from the instant claims by not disclosing the use of Flk-2-specific antibodies to isolate hemopoietic stem cells.

Matthews et al. teach that flk-2 is expressed in populations enriched for hemopoietic stem cells and primitive uncommitted progenitor cells (See entire document, including Summary). In addition, Matthews et al. teach that given the transmembrane nature of flk-2, one should be able to generate antibodies reactive with intact cells as well as its implications in hemopoietic developmental biology and as well as clinical transplantation therapy (see page 1150, column 1, paragraphs 2).

Given the teachings herein, one of ordinary skill in the art at the time the invention was made would have been motivated to isolate flk-2 expressing cells with flk-2-specific antibodies to select hemopoietic stem and progenitor cells for studies on hemopoietic developmental biology as well as for therapeutic procedures. From the teachings of the references, it was apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was prima facie obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

9. No claim is allowed.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phillip Gambel whose telephone number is (703) 308-3997. The examiner can normally be reached Monday through Thursday from 7:30 am to 6:00 pm. A message may be left on the examiner's voice mail service. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Chan can be reached on (703) 308-3973. Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center 1600 receptionist whose telephone number is (703) 308-0196.

Papers related to this application may be submitted to Technology Center 1600 by facsimile transmission. Papers should be faxed to Technology Center 1600 via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The CM1 Fax Center telephone number is (703) 305-3014.

Phillip Gambel, PhD.
Primary Examiner
Technology Center 1600
May 30, 2003